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10/584,218	06/23/2006	Mariko Miyachi	Q95231	9720

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EXAMINER	
CULLEN, SEAN P	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
08/12/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/584,218	MIYACHI ET AL.	
	Examiner	Art Unit	
	Sean P. Cullen	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 24-36 must be renumbered 18-30.

Misnumbered claims 18-23 must be renumbered 31-36.

2. The amendment to the claims filed on June 14, 2010 does not comply with the requirements of 37 CFR 1.121(c) because claim 18 is "new" not "currently amended."

Examiner Note

3. Claim 18 was not presented in the Preliminary Amendment filed on June 23, 2006. Therefore, claim 18 cannot be identified as "currently amended." As stated in the last Office Action dated February 19, 2010. Misnumbered claims 24-36 must be renumbered 18-30. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented. Therefore, the newly presented claims 18-23 must be renumbered 31-36. For the purpose of this office action, the numbering of claims will be kept as they are presently presented. However, the claims must be renumbered as detailed above to be in accordance with 37 CFR 1.126.

4. Regarding limitations recited in claims 10, 11, 13-16, 26, 27 and 29-32, which are directed to method of making an anode material for a secondary battery, it is noted that said

limitations are not given patentable weight in the product claims. Even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself and does not depend on its method of production. *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same or obvious as the product of the prior art, the claim is unpatentable even though the prior art product was made by a different process.). See MPEP § 2113 and § 2114.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-16, 18, 20-32, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara et al. (U.S. 5,395,711) in view of Ahn et al. (U.S. 2002/0168574 A1).

Regarding claim 1, Tahara et al. discloses an anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) having at least an anode (5), a cathode (3) and a lithium-ion conducting non-aqueous electrolyte (C10/L24-40) comprising:

- an Si oxide (C17/L20-53) and

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 2, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- wherein when the Si oxide is expressed in SiOz, $0.8 \leq z \leq 2$ (see SiO, C21/L25-41)).

Regarding claim 3, Tahara et al. discloses an anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) having at least an anode (5), a cathode (3) and a lithium-ion conducting non-aqueous electrolyte (C10/L24-40) comprising:

- a lithium silicate (C6/L14-36) and

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 4, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- wherein when the lithium silicate is expressed in Li_xSiO_y, $0<x$ and $0<y\leq4$ (see Li_2SiO_3, C16/L1-18).

Regarding claim 5, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- further comprising lithium metal (see Li_2SiO_3, C16/L1-18).

Regarding claim 6, modified Tahara et al. discloses all claim limitations set forth above, but does not explicitly disclose an anode material for a secondary battery:

- wherein the noble metal is at least one metal selected from the group consisting of Pd, Ag, Pt, Au, Rh, Ir, Ru, Os and Re.

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) wherein the noble metal is at least one metal selected from the group consisting of Pd, Ag, Pt, Au, Rh, Ir, Ru, Os and Re (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of modified Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 7, modified Tahara et al. discloses all claim limitations set forth above, but does not explicitly disclose an anode material for a secondary battery:

- wherein when a ratio of Si atoms to noble-metal atoms is expressed in a:b, $0.01<b/a$.

Ahn et al. discloses wherein when a ratio of Si atoms to noble-metal atoms is expressed in a:b, $0.005<b/a<0.5$ (see 0.1% to about 50% of electrode total weight of active materials, [0031]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of modified Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Although Ahn et al. discloses an overlapping range of ratio of Si atoms to noble-metal atoms, it would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because selection of overlapping portion of ranges has been held to be a prima facie case of obviousness. In re Malagari, 182 USPQ 549.

Regarding claim 8, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- partially or wholly having an amorphous structure (see amorphous structure, C6/L37-52).

Regarding claim 9, Tahara et al. discloses an anode (5) for a secondary battery (Fig. 1) comprising:

- an activator layer (5) having a film-structure anode activator (5, Fig. 1) which comprises

- the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
  - an Si oxide (C17/L20-53)
- on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 10, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the activator layer is formed by a vacuum film-forming method (see CVD, C7/L1-19).

Regarding claim 11, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the vacuum film-forming method is CVD, vacuum deposition or sputtering (see CVD, C7/L1-19).

Regarding claim 12, Tahara et al. discloses an anode (5) for a secondary battery (Fig. 1) comprising:

- an activator layer (5) having a particulate-structure anode activator (Fig. 1) which comprises
    - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
        - an Si oxide (C17/L20-53)
    - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 13, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the anode activator (5) is formed by mechanical processing (C16/L1-18).

Regarding claim 14, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the activator layer is formed by a vacuum film-forming method (see CVD, C7/L1-19).

Regarding claim 15, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the vacuum film-forming method is CVD, vacuum deposition or sputtering (see CVD, C7/L1-19).

Regarding claim 16, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the anode activator is further heat-treated (see heating, C16/L1-18).

Regarding claim 18, modified Tahara et al. discloses a non-aqueous electrolytic-solution secondary battery (Fig. 1) comprising:

- an anode (5) for a secondary battery (Fig. 1) comprising
    - an activator layer (5) having a film-structure anode activator (5, Fig. 1) which comprises
        - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
            - an Si oxide (C17/L20-53)
        - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the

capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 20, modified Tahara et al. discloses a non-aqueous electrolytic-solution secondary battery (Fig. 1) comprising:

- an anode (5) for a secondary battery (Fig. 1) comprising
    - an activator layer (5) having a particulate-structure anode activator (Fig. 1) which comprises
        - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
            - an Si oxide (C17/L20-53)
        - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 21, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- further comprising lithium metal (see Li_2SiO_3, C16/L1-18).

Regarding claim 22, modified Tahara et al. discloses all claim limitations set forth above, but does not explicitly disclose an anode material for a secondary battery:

- wherein the noble metal is at least one metal selected from the group consisting of Pd, Ag, Pt, Au, Rh, Ir, Ru, Os and Re.

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) wherein the noble metal is at least one metal selected from the group consisting of Pd, Ag, Pt, Au, Rh, Ir, Ru, Os and Re (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of modified Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 23, modified Tahara et al. discloses all claim limitations set forth above, but does not explicitly disclose an anode material for a secondary battery:

- wherein when a ratio of Si atoms to noble-metal atoms is expressed in a:b, $0.01<b/a$.

Ahn et al. discloses wherein when a ratio of Si atoms to noble-metal atoms is expressed in a:b, $0.005<b/a<0.5$ (see 0.1% to about 50% of electrode total weight of active materials,

[0031]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of modified Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Although Ahn et al. discloses an overlapping range of ratio of Si atoms to noble-metal atoms, it would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because selection of overlapping portion of ranges has been held to be a prima facie case of obviousness. In re Malagari, 182 USPQ 549.

Regarding claim 24, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode material for a secondary battery:

- partially or wholly having an amorphous structure (see amorphous structure, C6/L37-52).

Regarding claim 25, Tahara et al. discloses an anode (5) for a secondary battery (Fig. 1) comprising:

- an activator layer (5) having a film-structure anode activator (5, Fig. 1) which comprises
    - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
        - a lithium silicate (C6/L14-36)
        - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 26, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the activator layer is formed by a vacuum film-forming method (see CVD, C7/L1-19).

Regarding claim 27, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the vacuum film-forming method is CVD, vacuum deposition or sputtering (see CVD, C7/L1-19).

Regarding claim 28, Tahara et al. discloses an anode (1) for a secondary battery (Drawings1) comprising:

- an activator layer (5) having a particulate-structure anode activator (Fig. 1) which comprises

- the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
  - a lithium silicate (C6/L14-36)
  - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 29, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the anode activator (5) is formed by mechanical processing (C16/L1-18).

Regarding claim 30, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the activator layer is formed by a vacuum film-forming method (see CVD, C7/L1-19).

Regarding claim 31, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the vacuum film-forming method is CVD, vacuum deposition or sputtering (see CVD, C7/L1-19).

Regarding claim 32, modified Tahara et al. discloses all claim limitations set forth above and further discloses an anode for a secondary battery:

- wherein the anode activator is further heat-treated (see heating, C16/L1-18).

Regarding claim 34, Tahara et al. discloses a non-aqueous electrolytic solution secondary battery (Fig. 1) comprising:

- the anode (5) for a secondary battery (Fig. 1) comprising:
    - an activator layer (5) having a film-structure anode activator (5, Fig. 1) which comprises
        - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
            - a lithium silicate (C6/L14-36)
            - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

Regarding claim 36, Tahara et al. discloses a non-aqueous electrolytic-solution secondary battery (Fig. 1) comprising:

- the anode (5) for a secondary battery (Fig. 1) comprising
    - an activator layer (5) having a particulate-structure anode activator (Fig. 1) which comprises
        - the anode material (see negative electrode active material, C3/L15-20) for a secondary battery (Fig. 1) comprising
            - a lithium silicate (C6/L14-36)
            - on at least one side of an anode collector (6, Fig. 1).

Tahara et al. does not explicitly disclose:

- at least one noble metal in a metallic state

Ahn et al. discloses an anode material (see anode electrode, [0023]-[0025]) comprising at least one noble metal in a metallic state (see silver, gold and platinum, [0025]) to increase the capacity of the secondary battery and increase the conductivity of the anode ([0013] and [0039]). Tahara et al. and Ahn et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode material of Tahara et al. with the at least one noble metal of Ahn et al. to increase the capacity of the secondary battery and increase the conductivity of the anode.

7. Claims 17, 19, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara et al. (U.S. 5,395,711) in view of Ahn et al. (U.S. 2002/0168574 A1) as applied to claims 9, 12, 25 and 28 above, in further view of Takada et al. (U.S. 2004/0166409).

Regarding claims 17, 19, 33 and 35, Inoue et al. discloses all claim limitations set forth above, but does not explicitly disclose an anode for a secondary battery:

- wherein a center-line average roughness (Ra) of the anode collector is 1/10 or more of a thickness of the anode collector.

Takada et al. discloses an anode (10) for a secondary battery (Fig. 2) wherein a center-liner average roughness (Ra) of the anode collector (11) is 1/10 or more (see Example 2-4, 10/15 > 1/10) of a thickness of the anode collector (11) to prevent the peeling of the anode active material layer from the current collector [0022]. Tahara et al. and Takada et al. are analogous art because they are directed to lithium secondary batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the anode of modified Tahara et al. with the current collector of Takada et al. to prevent the peeling of the anode active material layer from the current collector.

Response to Arguments

8. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Cullen whose telephone number is 571-270-1251. The examiner can normally be reached on Monday thru Thursday 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on 571-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. P. C./
Examiner, Art Unit 1795

/Robert Hodge/
Primary Examiner, Art Unit 1795